

10/519032  
DT01 Rec'd PCT/PTC 22 DEC 2004

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Original) A method of testing a currency item comprising deriving a plurality of measurements of the currency item at a resolution (R) and processing the measurements to derive values at a different resolution.
2. (Original) A method as claimed in claim 1 wherein the resolution is reduced in the spectral domain, the method comprising filtering the signal of the measured values in the spectral domain to reduce the resolution in the spectral domain by taking a subset of the set of spectral components.
3. (Original) A method as claimed in claim 2 wherein the subset is of a predetermined size.
4. (Currently amended) A method as claimed in claim 2 ~~or claim 3~~ wherein the spectral domain is the frequency spectrum.
5. (Original) A method as claimed in claim 4 wherein the filtering excludes high frequency components.
6. (Currently amended) A method as claimed in claim 2 ~~in any one of claims 2 to 5~~ wherein the signal of the measured values is normalized, preferably by a mean value, before filtering.

7. (Currently amended) A method as claimed in claim 2 ~~any one of claims 2 to 6~~ comprising deriving a feature vector using the subset of spectral components.
8. (Original) A method as claimed in claim 7 comprising processing the feature vector using a neural network, including a backpropagation network or an LVQ network.
9. (Currently amended) A method as claimed in ~~any preceding~~ claim 1 comprising interpolation to increase the resolution in the spatial domain.
10. (Original) A method as claimed in claim 9 wherein measurements are derived at a first resolution R1 in a first spatial direction and at a second resolution R2 in a second spatial direction.
11. (Original) A method as claimed in claim 10 wherein the first and second directions are substantially perpendicular
12. (Currently amended) A method as claimed in claim 10 ~~or claim 11~~ wherein  $R1 < R2$ , and wherein the processing increases the resolution in the first direction to approximately R2.
13. (Currently amended) A method as claimed in ~~any preceding~~ claim 1 involving a method of reconstituting a sampled signal.
14. (Currently amended) A method as claimed in ~~any preceding~~ claim 1 involving summing measured values weighted by a weighting function.
15. (Original) A method as claimed in claim 14 wherein the weighting function is of the form  $\sin(x)/x$ .

16. (Currently amended) A method as claimed in ~~any preceding~~ claim 1 including using a weighting window to compensate for edge effects.

17. (Original) A method as claimed in claim 16 wherein the weighting window is a raised cosine window such as a Hamming or Hanning or Kaiser-Bessel window.

18. (Currently amended) A method as claimed in ~~any one of claims 9 to 17~~ claim 9 comprising removing the mean of the measured values before interpolation and reinstating it after interpolation.

19. (Currently amended) A method as claimed in ~~any preceding~~ claim 1 wherein the measured values are derived along a line substantially parallel to one edge of the document.

20. (Currently amended) A method as claimed in ~~any preceding~~ claim 1 for validating a currency item.

21. (Currently amended) A method as claimed in ~~any preceding~~ claim 1 for denominating a currency item.

22. (Currently amended) A method as claimed in ~~any preceding~~ claim 1 for testing a document, banknote or other value sheet.

23. (Currently amended) A method as claimed in ~~any one of claims 1 to 21~~ claim 1 for testing a coin.

24. (Currently amended) A currency tester adapted to perform a method as claimed in ~~any preceding~~ claim 1.

25. (Original) A currency tester as claimed in claim 24 comprising means for sensing a currency item at resolution R.
26. (Original) A currency tester as claimed in claim 25 comprising means for sensing a currency item at resolution R1 extending in a first direction and means for sensing a currency item at a resolution R2 in a second direction.
27. (Original) A currency tester as claimed in claim 25 comprising a linear sensor array of resolution R1 and means for moving the currency item relative to the sensor array at a resolution R2.
28. (Currently amended) A currency tester as claimed in ~~any one of claims 24 to 27~~ claim 24 for denominating and/or validating currency items.
29. (Currently amended) A currency tester as claimed in ~~any one of claims 24 to 28~~ claim 24 for testing a coin.
30. (Currently amended) A currency tester as claimed in ~~any one of claims 24 to 29~~ claim 24 for testing a document, banknote or other value sheet.
31. (Original) A currency tester as claimed in claim 30 wherein a document can be fed in the transport path with skew and offset with respect to the edge of the transport path.
32. (Currently amended) A currency tester as claimed in ~~any one of claims 24 to 31~~ claim 24 which can process a plurality of currency items of different sizes.